

Serial No. 10/080,037

6

Group Art Unit: 2859

REMARKS

Applicants' note with appreciation the Examiner's indication of allowable subject matter, namely the subject matter recited in Claims 12, 13, and 14. The following amendment cancels Claims 9, 12 and 17-31, and amends Claim 1 to rewrite Claim 12 in independent form including all the limitations of original Claim 1 and intervening Claim 9. Additionally, Claims 10, 11, 13, and 14 are amended to correct dependencies as a result of the cancellation of Claims 9 and 12. No new matter has been added.

Now in the application are Claims 1-8, 10, 11, and 13-16 of which Claim 1 is independent. Claims 17-31 have been cancelled as a result of Applicants' election on July 9, 2003, without prejudice to Applicants' filing one or more divisional applications. The following comments address all stated grounds for rejection, and place the presently pending claims, as identified above, in condition for allowance.

Claim Rejections under 35 U.S.C. § 102

Claims 1, 2, 9-11, 15, and 16 stand rejected under 35 U.S.C. § 102. For ease of the discussion below each rejection under 35 U.S.C. § 102 is discussed separately.

A. Rejection of Claims 1, 2, 9-11, 15 and 16 under 35 U.S.C. § 102(b):

Claims 1, 2, 9-11, 15 and 16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,658,407 of Iwama (hereinafter "Iwama"). Applicants' respectfully traverse this rejection in light of the above amendments and request the reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b) for the following reasons.

Claims 2, 10, 11, 15, and 16 depend directly or indirectly upon amended Claim 1 and therefore incorporate the patentable features of amended Claim 1.

Claim 9 is cancelled by the above amendment and therefore the rejection of Claim 9 is considered moot.

Amended Claim 1 recites the allowable subject matter identified by the Examiner in original Claim 12 and the subject matter recited in intervening original Claim 9. As such, the

Serial No. 10/080,037

7

Group Art Unit: 2859

Iwama reference does not anticipate the subject matter of Claims 1, 2, 10, 11, 15, and 16, as amended.

Hence, Applicants' respectfully request the Examiner to reconsider and withdraw the rejection of amended Claim 1 and Claims 2, 10, 11, 15 and 16 under 35 U.S.C. § 102(b).

B. Rejection of Claims 1, 2, 9, 15 and 16 under 35 U.S.C. § 102(b):

Claims 1, 2, 9, 15 and 16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5, 626,425 of Fujikawa, et al. (hereinafter "Fujikawa"). Applicants' respectfully traverse this rejection in light of the above amendments and contend that Fujikawa does not anticipate Claims 1, 2, 9, 15 and 16, as amended.

Claims 2, 15, and 16 depend directly or indirectly, upon amended Claim 1 and thereby incorporate the patentable features of amended Claim 1.

Claim 9 is cancelled by the above amendment and therefore the rejection of Claim 9 is considered moot.

Amended Claim 1 recites the allowable subject matter identified by the Examiner in original Claim 12 and the subject matter recited in intervening original Claim 9. As such, the Fujikawa reference does not anticipate the subject matter of Claims 1, 2, 15, and 16, as amended.

Accordingly, Applicants' respectfully request the Examiner to reconsider and withdraw the rejection of Claims 1, 2, 9, 15 and 16 under 35 U.S.C. § 102(b).

Claim Rejections under 35 U.S.C. § 103

Claims 3, 4, 5, 6, 7 and 8 stand rejected under 35 U.S.C. § 103. For ease of the discussion below, each claim rejection under 35 U.S.C. § 103 is discussed separately.

A. Rejection of Claims 3 and 4 under 35 U.S.C. § 103(a):

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwama in view of U.S. Patent No. 5,832,048 of Woodman, Jr. (hereinafter "Woodman"). Applicants' respectfully traverse this rejection in light of the above amendments and contend that

Serial No. 10/080,037

8

Group Art Unit: 2859

Iwama in view of Woodman does not detract from the patentability of Claims 3 and 4.

Claims 3 and 4 depend, directly or indirectly, upon amended Claim 1 and therefore incorporate the novel features of amended Claim 1. Accordingly, Applicants' contend that the Iwama reference in view of the Woodman reference fails to teach and suggest each and every feature of Claims 3 and 4.

Hence, Applicants' respectfully request the Examiner to reconsider and withdraw the rejection of Claims 3 and 4 under 35 U.S.C. § 103(a).

B. Rejection of Claims 3 and 4 under 35 U.S.C. § 103(a):

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Iwama reference in view of U.S. Patent No. 6,362,699 of Fry (hereinafter "Fry"). Applicants' respectfully traverse this rejection in light of the above amendments and contend that Iwama in view of Fry does not detract from the patentability of Claims 3 and 4.

Claims 3 and 4 depend, directly or indirectly, upon amended Claim 1 and therefore incorporate the patentable features of amended Claim 1. Accordingly, Applicants' contend that the Iwama reference in view of the Fry reference fails to teach and suggest each and every feature of Claims 3 and 4.

Hence, Applicants' respectfully request the Examiner to reconsider and withdraw the rejection of Claims 3 and 4 under 35 U.S.C. § 103(a).

C. Rejection of Claim 5 under 35 U.S.C. § 103(a):

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the Iwama reference in view of U.S. Patent No. 5,193,387 of Hodate (hereinafter "Hodate"). Applicants' respectfully traverse this rejection in light of the above amendments and contend that the Iwama reference in view of the Hodate reference fails to detract from the patentability of Claim 5.

Claim 5 depends, directly or indirectly, upon amended Claim 1 and thereby incorporates the patentable features of amended Claim 1. As such, Applicants' contend that the Iwama reference in view of the Hodate reference fails to teach and suggest each and every feature of Claim 5.

Serial No. 10/080,037

9

Group Art Unit: 2859

Accordingly, Applicants' respectfully request the Examiner to reconsider and withdraw the rejection of Claim 5 under 35 U.S.C. § 103(a).

D. Rejection of Claim 6 under 35 U.S.C. § 103(a):

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwama in view of Hodate and further in view of U.S. Patent No. 5,892,408 of Binder (hereinafter "Binder"). Applicants' respectfully traverse this rejection in light of the above amendments and contend that Iwama in view of Hodate and further in view of Binder fails to detract from the patentability of Claim 6.

Claim 6 depends, directly or indirectly, upon amended Claim 1 and therefore incorporates the patentable features of amended Claim 1. As such, Applicants' contend that the Iwama reference in view of the Hodate reference and further in view of the Binder reference fails to teach or suggest each and every feature of Claim 6.

Accordingly, Applicants' respectfully request the Examiner to reconsider and withdraw the rejection of Claim 6 under 35 U.S.C. § 103(a).

F. Rejection of Claim 8 under 35 U.S.C. § 103(a):

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwama in view of Hodate and further in view of U.S. Patent No. 5,838,578 of Pippin (hereinafter "Pippin"). Applicants' respectfully traverse this rejection in light of the above amendments and contend that the Iwama reference in view of the Hodate reference and further in view of the Pippin reference fails to detract from the patentability of Claim 8.

Claim 8 depends, directly or indirectly, upon amended Claim 1 and thereby incorporates the patentable features of amended Claim 1. Accordingly, Applicants' contend that the Iwama reference in view of the Hodate reference and in further view of the Pippin reference fails to teach or suggest each and every feature of Claim 8.

As such, Applicants' respectfully request the Examiner to reconsider and withdraw the rejection of Claim 8 under 35 U.S.C. § 103(a).

Serial No. 10/080,037

10

Group Art Unit: 2859

F. Rejection of Claim 7 under 35 U.S.C. § 103(a):

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the Iwama reference in view of the Fry reference and further in view of U.S. Patent No. 5,097,198 of Holmdahl (hereinafter "Holmdahl"). Applicants' respectfully traverse this rejection in light of the above amendments and contend that the Iwama reference in view of the Fry reference and further in view of the Holmdahl reference fails to detract from the patentability of Claim 7.

Claim 7 depends, directly or indirectly, upon amended Claim 1 and thereby incorporates the patentable features of amended Claim 1. As such, Applicants' contend that the Iwama reference in view of the Fry reference and further in view of the Holmdahl reference fails to teach or suggest each and every feature of Claim 7.

Accordingly, Applicants' respectfully request the Examiner to reconsider and withdraw the rejection of Claim 7 under 35 U.S.C. § 103(a).

G. Rejection of Claim 7 under 35 U.S.C. § 103(a):

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwama in view of Fry and further in view of U.S. Patent No. 4,165,642 of Lipp (hereinafter "Lipp"). Applicants' respectfully traverse this rejection in light of the above amendments and contend that the Iwama reference in view of the Fry reference and in further view of the Lipp reference fails to detract from the patentability of Claim 7.

Claim 7 depends, directly or indirectly, upon amended Claim 1 and thereby incorporates the novel features of amended Claim 1. Hence, Applicants' contend that the Iwama reference in view of the Fry reference and in further view of the Lipp reference fails to teach or suggest each and every feature of Claim 7.

Accordingly, Applicants' respectfully request the Examiner to reconsider and withdraw the rejection of Claim 7 under 35 U.S.C. § 103(a).

Serial No. 10/080,037

11

Group Art Unit: 2859

CONCLUSION

In view of the remarks set forth above, Applicants contend that Claims 1-8, 10, 11, and 13-16 presently pending in this application, are patentable, and in condition for allowance. If the Examiner deems there are any remaining issues, we invite the Examiner to call the undersigned at (617) 227-7400.

Respectfully submitted,

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